

Approval Chart for Curriculum Changes

A = Approve I= Information Item¹ R= Advise & Respond²

Course Number ENGR 377 or Degree Plan(s) _____
 State the requested change and reason. A memo may be attached if more space is necessary.

See Attached

Circle the number that corresponds to the requested change. Degree plan changes are on the second page.

Change to a Course		Dept./School	College Academic	Deans	COUNCIL ³				Provost	President
					TEC	UGEC	UUAC	GRAD		
1.	Title (description unchanged)	A	A	A		I			I	I
2.	Description (not affecting content)	A	A	A		I			I	I
3.	Course term(s)	A	I	A		I			I	I
4.	Content (substantive change)	A	A	A		I			A	A
5.	Number of hours (lecture, lab, contact)	A	A	A		A			A	A
6.	Course number within the hundred	A	A	I		I			I	I
7.	Course number beyond the hundred	A	A	A		A			A	A
8.	Prerequisites	A	A	A		I			I	I
9.	Course fee(s)	A	-	A		-			A	I
10.	From U to G or G to U	A	A	A		A			A	A
11.	Cross list with another department: U or G level	A	A	A		A			A	A
12.	Department of record	A	A	A		A			A	A
13.	Open or close a course	A	A	A		A			A	A
14.	New course — See website for application and process. This change includes combining or splitting a course(s).	A	A	A		A			A	A

Note: When an academic unit does not have a council, the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

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		COUNCIL ³							Provost	Faculty	President	Board of Trustees
		TEC	UGEC	UUAC	GRAD	Deans	College Academic	Dept./School				
Change to a Degree Plan												
1.	University Requirements — Change in approved course content ⁶	A	A	A	A			A	--	A	--	
2.	University Requirements — Add or drop a required course from the University Requirements chart ⁶	A	A	A	A			A	A	A	--	
3.	University Requirements — Add or drop a course from a menu within the University Requirements ⁶	A	--	--	A			A	--	A	--	
4.	University Requirements — Change hours within a menu on the University Requirements chart ⁶	A	A	A	A			A	A	A	--	
5.	Major — Revision of major ^{4,5}	A	A	A	A			A	--	A	--	
6.	Major — Adopt or change admission requirements	A	A	A	A			A	--	A	--	
7.	Major — Add ^{4,5}	A	A	A	A			A	A	A	I	
8.	Major – Discontinue (proposed by the department or college)	A	A	A	A			A	A	A	I	
9.	Major – Discontinue (proposed by the Provost)	See below.										
10.	GPA — Revise major or cumulative requirement	A	A	A	A			A	A	A	--	
11.	Minor — Revise course selection	A	A	A	I			I	--	I	--	
12.	Minor — Add	A	A	A	A			A	--	A	--	
13.	Minor – Discontinue (proposed by the department or college)	A	A	A	A			A	--	A	--	
14.	Minor – Discontinue (proposed by the Provost)	See below.										
15.	Degree — Add	A	A	A	A			A	A	A	I	
16.	Degree – Discontinue (proposed by the department or college)	A	A	A	A			A	A	A	I	
17.	Degree – Discontinue (proposed by the Provost)	See below.										
18.	Any change to a graduate degree program	A	A	A	A			A	--	A	--	

COUNCIL ³										
	Provost-Proposed Change	Provost	Department	Dean	TEC	UUAC	Graduate	Faculty	President	Board of Trustees
1.	Major/Graduate Program – Discontinue (proposed by the Provost)	A	R	R	A			A	A	I
2.	Minor – Discontinue (proposed by the Provost)	A	R	R	A			--	A	--
3.	Degree – Discontinue (proposed by the Provost)	A	R	R	A			A	A	I

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COUNCIL ³										
	Change to the Catalog Information	Dept./School	College Academic	Deans	UGEC	UUAC	GRAD	Provost	Faculty	President
1.	General requirements for graduation including course requirements that are common to all majors for all degrees ⁷	--	--	--	A			A	A	A
2.	Admission requirements	--	--	--	A			A	A	A
3.	Policies governing academic probation and suspension	--	--	--	A			A	A	A
4.	Requirements for graduating with honors	--	--	--	A			A	A	A
5.	Other academic policy changes	--	--	--	A			A	--	A

¹ Councils may request additional information about "Information" items. These items are approved as "Consent Agenda."

² The Dean and Department should respond to the Provost's recommendation to close a program in writing. Advise & Respond (R) requires that the voting body should receive the written responses at least one week prior to the vote.

³ All courses that meet University Requirements for general education must go through UGEC. Courses or degrees offered only to students seeking teacher certification must go through the Teacher Education Council. All undergraduate changes must go before the UUAC. All graduate degree plan changes must go through the Graduate Council.

⁴ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g., BA, BS). The university minimum for elective hours is 6, unless the requirements of external accrediting bodies make it impossible.

⁵ Program or course changes that apply to any major that includes Teacher Certification will be reviewed by the college, the Teacher Education Council (TEC), and then the UUAC.

⁶ Courses that satisfy ACU's University Requirements (General Education) will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

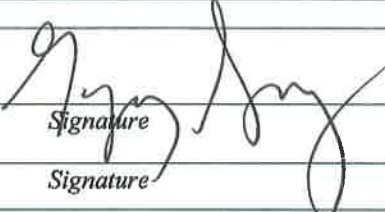
⁷ The UUAC approved the clarification that "general requirements for graduation" means the enumerated items in the "General Requirements for Bachelor's Degrees" section of the catalog.

Revised 3-8-17

Curriculum/Catalog Changes Signature Page

Department/School Chair(s)	
 <i>Signature</i>	10/30/18 <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

College Academic Council(s)	
 <i>Signature</i>	11-20-2018 <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

Dean(s)	
 <i>Signature</i>	11/27/18 <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

Teacher Education Council	
<i>Chair's signature</i>	<i>Approval date</i>

General Education Council	
<i>Chair's signature</i>	<i>Approval date</i>

Undergraduate Academic Council	
<i>Chair's signature</i>	<i>Approval date</i>

Graduate Council	
<i>Chair's signature</i>	<i>Approval date</i>

Provost	
<i>Signature</i>	<i>Approval date</i>

Faculty	
<i>Chair of faculty senate</i>	<i>Approval date</i>

President	
<i>Signature</i>	<i>Approval date</i>

Application for a New Course v10.6

Course ID <i>Subject and Number</i>	ENGR 377
Date APPROVED	
Date DENIED	

I. Systems and Catalog Information Complete each item.

1	Course Developer	Lori Houghtalen
2	Course Teacher	A faculty member in the department of Engineering and Physics
3	Course Title	Statistics for Engineers
4	Course Abbreviation (if title is over 30 characters)	Statistics for Engineers
5	College	Arts and Sciences
6	Department	Engineering and Physics
7	Number of Credit Hours	3
8a.	Number of contact hours - lecture	3
8b.	Number of contact hours – lab/activity	0
9	Is the course for a fixed or variable number of credit hours?	Fixed
10	Explanation for variable credit	N/A
11	Is the course repeatable for additional credit?	No
12	Maximum total number of credit hours a student can earn for this course	3
13	What type of course is this? (Select one. Please see Schedule Type definitions above.)	☒ Traditional lecture ☐ Traditional lab ☐ Traditional lecture/lab ☐ Experiential Learning ☐ Seminar ☐ Studio ☐ Thesis

		___Dissertation
14	Instructor Workload	3
15	Grade Mode (check all appropriate):	<u>X</u> Standard ___Credit/No Credit (undergrad only)
16	Maximum Enrollment	18
17	Catalog Description (50 words or less)	Foundation in concepts associated with uncertainty in practical engineering systems, including proper formulation of data analysis methods and correct interpretation of such analyses. Topics include data collection, basic probability and distributions, central limit theorem, confidence intervals, hypothesis testing, and linear regression. Applications focus on analysis and modeling of relationships in data.
18	List any prerequisites (course/s, test scores, class standing, major, etc.)	Math 186
19	List any co-requisites	None
20	If the course is cross listed, specify the Course ID(s); MUST have signature in Section V from all Department Chairs	None
21	Does this course have any special student costs?	<u>X</u> No ___Yes (If yes, must attach a <u>completed</u> "Request to Add or Change Course Fees" form. Describe in section IV-F.)
22a	How frequently will the course be offered in the Fall ? All, even or odd years?	None
22b	How frequently will the course be offered in the Spring ? All, even or odd years?	All
22c	How frequently will the course be offered in the Summer ? All, even or odd years?	None
23	First semester this course will be offered <i>New courses may not be taught under their approved course ID until they</i>	Spring 2020

	<i>appear in the catalog, therefore, no earlier than the coming fall.</i>	
24	List course/s that should be deleted, (Also, include the last semester for course/s being deleted) <i>A course cannot be deleted when it is a requirement in a degree plan in any department.</i>	
25	Is this course required for a degree/s? <i>If "Yes," attach a revised degree plan(s) reflecting the placement of the new course.</i>	☐ No ☒ Yes
26	Should the addition of this course be retroactively applied to the degree plan it supports?	☒ No ☐ Yes Explanation:
27	Has this course been offered as a Special Topics course?	☒ No ☐ Yes <i>If "Yes," specify the Course ID and enrollment for each term it was taught. (Note: New courses are NOT required to be taught as Special Topics courses prior to being approved. However, a course may be taught once as Special Topics before it is proposed. See the Course Descriptions section of the Catalog for details.)</i>
28	List any courses in which the content overlaps the proposed course. (Course ID and Name) <i>Attach a statement from the instructor/dept chair of the existing course justifying the new offering in Section IV-D.</i>	MATH 377, The Math department supports the addition of this course as they cannot support an additional section that this will require. MATH 377 will be offered in the fall and ENGR 377 will be offered in the spring.

II. Curriculum

1	Degree Plan Explanation of how this course affects degree requirements.	Starting in catalog year 2019-2020, this course will be required for all engineering majors. It will fulfill 3 of the 32 hours of Math/Science required by ABET.
2	Justification	Based upon recent (Fall '17 and Spring '18) feedback from the ACU Engineering Industrial Advisory Board,

07/01/2016

	State the justification for adding this course to the current curriculum. Represent the need.	ACU admissions, recent ('17 and '18) senior exit surveys, and the American Society of Engineering Educators, additional depth in engineering disciplines is needed within our degree plan to increase competitiveness of ACU graduates in the job market. A statistics course is a standard requirement in undergraduate engineering programs and supports content in discipline-specific depth electives in each track.
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III. Course Design

1. Audience and Course Goal

1	Describe the intended audience, including prerequisite skills.	Students in the spring of their second year of their engineering curriculum, having completed their calculus sequence. (The course builds on their calculus skills.)
2	State the overarching course goal(s) in performance terms.	1. Students will become knowledgeable in basic statistics and probability concepts 2. Students will become proficient in analyzing and interpreting data 3. Students will become critical consumers of statistical information 4. Students will understand how to make meaningful inferences from sample data

2. Competencies and Measurements

	Competency	Measurement
1	Understand and be critical of statistical claims, common pitfalls in sampling, and possible misrepresentation of conclusions	Homework, quizzes, course assignments, final exam
2	Understand the meanings of various statistical measures, including the mean, median, mode, standard deviation, variance, and quartiles	Homework, quizzes, course assignments, final exam
3	Become familiar with various graphical representations of data and learn to be a critical consumer	Homework, quizzes, course assignments, final exam

	of graphical information	
4	Understand the concept of a probability distribution and real-world problems involving Binomial, Normal, Hypergeometric, and Poisson distributions	Homework, quizzes, course assignments, final exam
5	Understand and apply the Central Limit Theorem	Homework, quizzes, course assignments, final exam
6	Compute and interpret confidence intervals	Homework, quizzes, course assignments, final exam
7	Conduct and interpret hypothesis tests	Homework, quizzes, course assignments, final exam
8	Understand linear regression models	Homework, quizzes, course assignments, final exam
9		

3. Text and Resources

1. Give the full publication information of the textbook/s and other required resources and outside readings.

Probability and Statistics for Engineering and the Sciences, 9th Edition, by Devore, J. Cengage Learning, 2016. ISBN 978-1-305-25180-9

2. For **combined undergraduate/graduate** courses, make two lists:
 - a. full publication information; label **Undergraduate**.
 - b. full publication information; label **Graduate**. Indicate number of pages required.

IV. Supporting Documentation

Supporting documents must accompany proposal prior to preliminary approval by chair and dean.

1	Library — Submit new course application and syllabus to the Dean of the Library. Consult with the director and establish a deadline for completion of the library report. Attach the signed copy of the Library report.
2	Instructional Design — The application and syllabus must be reviewed by the Adams Center. Attach a copy of the Adams Center Review Letter.
3	Content Overlap — Include one document for each course you listed in Section I-I. Attach statement from instructor/dept chair of existing course justifying the new offering.
4	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location/s.
5	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
6	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
7	Justification — Attach all documents referred to in Section II-2
8	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
9	Provide documentation for all additional attachments here

V. Preliminary Approvals

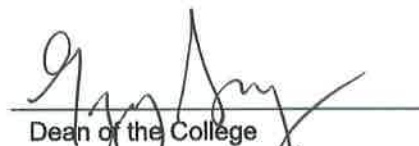
All supporting documentation has been assembled and attached to this application. I believe this course is ready to be presented to appropriate councils. We have a plan to fund this new course.

Course Number and Name ENGR 377

Primary Department


Department Chair

10/30/18
Date


Dean of the College
11/27/18
Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

VI. Actions *Place all actions on one page.*

Course ID: _____

Course Title: _____

1. College Academic Council: (for all courses)

Note: Insert additional lines for College Academic Council action for each college involved in cross-listed courses.

Approved _____ Denied _____
College Dean or Director Date _____

Approved _____ Denied _____
College Dean or Director Date _____

2. Graduate Council: (for graduate level courses)

Approved _____ Denied _____
Dean of Graduate School Date _____

3. Teacher Education Council: (when applicable)

Approved _____ Denied _____
TEC Chair Date _____

4. University General Education Council: (when applicable)

Approved _____ Denied _____
Provost's designee Date _____

5. University Undergraduate Academic Council: (*undergraduate level courses*)

Approved _____ Denied _____
Vice Provost Date _____

6. Academic Provost: (for all courses)

Approved _____ Denied _____
Provost Date _____

7. President of the University: (for all courses)

Approved _____ Denied _____
President Date _____

Attach notes, comments, or conditions from appropriate councils:

October 15, 2018

Dr. Lori Houghtalen
Onstead Science Center 137E
Lori.houghtalen@acu.edu
325-674-6534

Re: Review of ENGR250

Dear Dr. Houghtalen,

Thank you for submitting ENGR250: Statistics for Engineers. I have reviewed them based on the ACU Syllabus Guidelines. I find the syllabus to be meeting all requirements in an exemplary way, except the following minor details.

- Please add course credit hours and catalog description in the syllabus.
- Please remember to add meeting time and place when the information becomes available.

There is no need to bring the syllabus to the Adams Center for further review. However, please note that this letter is not meant to be a final approval in the course application process. Instead it is intended as a reference, which will be read by your department chair and members of the council, who may also have questions or comments of their own.

If you have any questions, please feel free to let me know. Please also let me know if we can be of any help in the design and facilitation of this course.



Director of Instructional Design, Adams Center

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

M E M O R A N D U M

DATE: 14:49
TO: Dr. Lori Houghtalen
FROM: Mark McCallon, Associate Dean for Library Services
RE: New Course Proposal, ENGR 377 – Statistics for Engineers

The library has examined the course application and syllabus and is able to support the proposed course. Please contact Erica Pye (exp10a@acu.edu) , Librarian Liaison to the Department of Engineering and Physics, if additional library resources are needed for the course. Thank you for letting us review the course proposal.

Statistics for Engineers Abilene Christian University

Class Meeting Times and Location

Assigned class meeting time is ...

The final exam period is scheduled for ...

Catalog Description

Foundation in concepts associated with uncertainty in practical engineering systems, including proper formulation of data analysis methods and correct interpretation of such analyses. Topics include data collection, basic probability and distributions, central limit theorem, confidence intervals, hypothesis testing, and linear regression. Applications focus on analysis and modeling of relationships in data.

Credit Hours: 3**Required Text**

The required text for this course is *Probability and Statistics for Engineering and the Sciences, 9th Edition*, by Devore, J. Cengage Learning, 2016. ISBN 978-1-305-25180-9

Intended Audience

ENGR 250 is a required course for engineering majors and intended to be completed during the spring semester of the sophomore year.

Prerequisites

MATH 186 (Calculus II)

Contact Information

Name: Lori Houghtalen, Ph.D.

Office: Onstead Science Center 137E

Phone: 325-674-6534 Email: lori.houghtalen@acu.edu

Office Hours: Tues 1-3pm, Wed 9-10am, Thurs 9-11am and 1-3pm, or by appointment

I have an open door policy; if my door is open you are welcome to come in. The times listed above are when I anticipate being in my office and will make every effort to be available. At times I have to be off campus or in meetings out of my office due to other departmental and campus responsibilities; in the event you need me and do not find me in my office please send me an email and we can set up a meeting as soon as possible.

TEACHING PHILOSOPHY

Engineering is a well-respected profession. The public entrusts engineers to be honest, competent, and ethical. Many codes of ethics for these fields indicate that the commitment to protecting the health, safety, and welfare of the public is of paramount importance. These values are in harmony with Christian principles and ideals. Christian engineers should be honest (Matthew 5:37), work hard to ensure competency (Colossians 3:23), and put the public's interest ahead of his or her own (Luke 6:31). In light of these principles, this course will be taught such that you will gain an appreciation for the professional nature of engineering. It will be taught so as to give you every opportunity to begin to develop competency in these fields. The instructor especially encourages the discussion of topics that would bear on integrating faith and professional responsibilities (cheating on licensure exams, weapons design and manufacture, environmental laws and employment opportunities in developing nations, etc.)

The instructor reserves the right to modify this document. The most up-to-date version of the document will be available on Canvas, and changes will announced in class and/or communicated via email.

LEARNING OBJECTIVES

After completing this course students will be able to:

- Understand and be critical of statistical claims, common pitfalls in sampling, and possible misrepresentation of conclusions
- Understand the meanings of various statistical measures, including the mean, median, mode, standard deviation, variance, and quartiles
- Become familiar with various graphical representations of data and learn to be a critical consumer of graphical information
- Understand the concept of a probability distribution and real-world problems involving Binomial, Normal, Hypergeometric, and Poisson distributions
- Understand and apply the Central Limit Theorem
- Compute and interpret confidence intervals
- Conduct and interpret hypothesis tests
- Understand linear regression models

COURSE GRADING

Each of the following grade categories is discussed in more detail below.

Homework	10% (lowest homework grade will be dropped)
Quizzes	30%
Course Assignments	35%
Final exam (May X)	15%
Participation and Professionalism	10%

Calculation of Final Course Grade*

The grading scale will be as follows:

90% and above	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
59% and below	F

*Instructor reserves the right to decrease the lower bound of the grade cut-offs.

Homework

Homework will be assigned approximately weekly, and each assignment will have instructions regarding when and how it should be submitted. Late homework will not be accepted; if you cannot finish an assignment in its entirety, submit what you have completed in order to earn partial credit. Often, only a subset of questions will be graded for each homework assignment; a complete solution will be made available for study purposes. It is each student's responsibility to check his or her work for errors.

Homework is intended to be a learning tool. Students are encouraged to attempt each homework assignment on their own, and then get together with a homework partner (which may be assigned) to compare approaches. *Every student must turn in his/her own written solutions.*

Quizzes

There will be a number (at least 6) of in-class quizzes, roughly corresponding to homework due dates. These quizzes will be closed book and closed notes, will take place at the beginning of the class period, and **no make-ups will be allowed**. While a quiz won't necessarily take place following each assignment, students should expect a quiz at this time.

Exams

The instructor reserves the right to modify this document. The most up-to-date version of the document will be available on Canvas, and changes will announced in class and/or communicated via email.

There will be three in-class exams and a cumulative final exam. Students will be permitted to use limited resources (i.e. notes and/or provided reference material) during in-class exams; further instructions will be provided well in advance of each exam. Make-up exams will not be given. If a student must miss an exam for a University-approved reason, the instructor should be notified as far in advance as possible.

Course Assignments

There will be approximately five large assignments in which students are expected to analyze a complex problem/scenario and work in groups to construct a spreadsheet model in Excel. Written and/or verbal analysis and interpretation of results will be required. Instructor may assign groups. These assignments will be equally weighted (i.e. if there are five, each will be worth 20% of the overall course grade).

Participation and professionalism*Participation*

Students are responsible for anything covered in class (which may include material not in the textbook). My commitment is to make our class time meaningful; I expect each student to come prepared to think and to engage, and to be on time. Classroom time will be a mix of lecture, discussion, and individual and small group activities. Participation in these (and all classroom activities) is expected, and will make for a much better class experience.

If a student is absent from class, it is his or her responsibility to get the notes and class assignments before the next class meeting. Students are required to attend at least 80% of class meetings in order to receive credit for the course. If you miss more than 20% of the classes, you may be dropped from the class with a WF.

Professionalism

Engineers are expected to behave in a professional manner. For the purposes of this course, professionalism means that students show up, are prepared, are engaged, treat peers and the instructor with respect (both verbally and in written communication), and do not engage in disruptive classroom activities. Disruptive activities include but are not limited to: inappropriate use of phones, computers, tablets, etc.; "sidebar" conversations during class discussions or presentations, arriving late, leaving or packing up early, and repeatedly exiting and entering the classroom.

A *projected* participation and professionalism grade will be posted on Canvas when mid-term grades are reported.

COURSE POLICIES**Communication**

ACU email and Canvas are the two official forms of class communication. General announcements and supplementary course materials will be posted on Canvas, and Canvas will also be used to report grades. Announcements that are time sensitive will be sent via ACU email.

Classroom rules

Cell Phones should be placed on 'Silent' mode while in class. In the case of an emergency you may answer your phone and quietly leave the room and return when you have finished your call. It is not in your best interest to text while in class.

Computers, laptops, tablets, etc. are not permitted to be used in the classroom unless they are being utilized as part of an in-class activity.

The instructor reserves the right to modify this document. The most up-to-date version of the document will be available on Canvas, and changes will announced in class and/or communicated via email.

Removal from course

The instructor reserves the right to remove from the course any student whose behavior is disruptive to the learning environment for students or faculty.

DEPARTMENT POLICIES**Calculators**

If the course instructor determines that calculators may be used during the exams or other in-class graded activities, only NCEES approved calculators will be permitted. This is to help you begin preparing for the FE exam. Also per NCEES policy, software that simulates approved calculators will not be permitted. The NCEES policy may be reviewed at <http://ncees.org/exams/calculator-policy>. If you are unsure about your calculator, it is your responsibility to check with the instructor for approval. If you are caught using a non-approved calculator, you will not be allowed to complete the activity, and you will receive a zero for that activity (including tests).

The approved calculators include the following:

- Hewlett Packard – HP 33s, HP 35s, and no other
- Casio – All FX-115 models. Any Casio calculator must contain FX-115 in its model name.
- Texas Instruments – All TI-30X and TI 36X models. Any TI calculator must contain either TI-30X or TI-36X in its model name.

Late work: In order to assist students in developing the discipline of meeting deadlines, assignments must be turned in on time in order to receive credit. Students who are absent, for any reason and including absences for University approved activities, on the day an assignment is due should contact the instructor before the assignment is due for directions.

Engineering computation paper: All handwritten quantitative homework solutions must be submitted on engineering paper. ESA engineering paper may be purchased from ESA in Mr. Ray Smith's office. Each page should be labeled as indicated on the ESA pages, or as follows on other engineering paper:

<i>Student Name</i>	<i>Date submitted</i>	<i>Course and Assignment</i>	<i>Pg #</i>
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ACADEMIC INTEGRITY POLICY

Academic integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent and therefore, are a form of lying. Such actions are contrary to behavioral norms that flow from the nature of God. Academic misconduct includes, but is not limited to, the following: 1) Failing to give credit to sources used in a work in an attempt to present the work as one's own, 2) Submitting papers or projects obtained from another source (e.g., research service or club paper file) as one's own, 3) Falsifying information orally or in writing, and 4) Receiving, giving, or using unauthorized aid on an examination or quiz. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of the College of Arts and Sciences, and the Dean of Student Life will be notified. See the full university policy, including how to appeal a decision, by following this link:

The instructor reserves the right to modify this document. The most up-to-date version of the document will be available on Canvas, and changes will announced in class and/or communicated via email.

<http://www.acu.edu/community/offices/administrative/office-of-the-provost/academic-integrity-policy.html>

ADA COMPLIANCE STATEMENT

"Abilene Christian University is dedicated to removing barriers and opening access for students with disabilities in compliance with ADA and Section 504 of the Rehabilitation Act. The Alpha Scholars Program facilitates disability accommodations in cooperation with instructors. In order to receive accommodations, you must be registered with Alpha Scholars Program, and you must complete a specific request for each class in which you need accommodations. If you have a documented disability and wish to discuss academic accommodations, please call our office directly at 325-674-2667."

THE MISSION OF ACU:

To educate students for Christian service and leadership throughout the world.

THE MISSION OF THE COLLEGE OF ARTS AND SCIENCES:

The College of Arts and Sciences engages students with humanity's greatest ideas to create understanding, apply insights, and serve the world as Christian thinkers and problem solvers.

THE MISSION OF THE ENGINEERING AND PHYSICS DEPARTMENT:

The ACU engineering program strongly supports the university's mission of educating students for Christian service and leadership throughout the world. In support of this mission, ACU engineering graduates will attain:

- a deep and broad understanding of engineering principles and practices as evidenced by professional employment, continued professional development, and graduate study in engineering or other professional fields.
- an extensive knowledge of the innovative design processes unique to engineering professionals as demonstrated by using critical thinking skills to contribute to the scientific and technical literature, patents and intellectual property, professional societies, and creative designs.
- a thorough understanding of Christian service and leadership as shown in their commitments to professionalism, ethics, and service and leadership within the engineering profession, the church, and society.

Tentative Course Schedule

Week	Topics	Reading
1	Populations, Samples, Pictorial and Tabular Methods	Ch 1.1-1.2
2	Measures of Location and Variability	Ch 1.3-1.4
3	Sample Spaces and Events, Properties of Probability	Ch 2.1-2.2
4	Counting, Conditional Probability, Independence	Ch 2.3-2.5
5	Random Variables, Discrete Probability Distributions, Expected Values	Ch 3.1-3.3
6	Binomial and Poisson Distributions	Ch 3.4, 3.6
7	Density Functions, Cumulative Distribution Functions and Expected Values, Normal Distribution	Ch 4.1-4.3
8	Continuous Distributions, Point Estimation	Ch 4.5, Ch 6.1
9	Confidence Intervals	Ch 7.1-7.4
10	Hypotheses and Test Procedures, z Tests for Population Mean	Ch 8.1-8.2
11	t-Test, Tests for Population Proportion	Ch 8.3-8.5
12	Inferences Based on Two Samples	Ch 9.1-9.4
13	Simple Linear Regression	Ch 12.1-12.3
14	Inferences, Prediction, and Correlation	Ch 12.4-12.5
15		Review

Tips for success:

This course will at times move very quickly through a lot of material. Students are expected to **complete the week's reading before class each Monday**; this initial reading should be for familiarity, not mastery. Failure to complete the reading will prevent meaningful participation during class activities, and will make it difficult to keep up with course assignments and expectations. If you are struggling to manage the workload, please contact me in a timely fashion for guidance. (Also, without input from students I won't have any way to know what adjustments to make!)

MEMORANDUM

DATE: October 30, 2018
TO: Dr. Jessica Smith
FROM: Jess Dowdy, Chair E&P 
David Hendricks, Chair Math 
RE: Course Application for ENGR 377 – Statistics for Engineers

History

The chair of Math and E&P met to discuss creating a new course in Engineering entitled Statistics for Engineers. The Math department saw no real concern over creating a new course.

The next question to determine was if the cross-listing for ENGR 377 and MATH 377 was possible. After determining that cross listing would allow flexibility for ENGR students to take MATH 377 in the fall or ENGR 377 in the spring, the chairs determined the cross listing potentially helps faculty and students from both programs.

The chairs then asked interested and invested faculty in the departments to meet together and determine if the cross-listing should occur. Faculty gave a resounding support for the idea of cross-listing the classes.

Statement

Both departments fully support the course application for ENGR 377.